

# LRQA/CQI Event “The Evolution of Risk assessment in Management Systems”

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The day was opened by Kevin Smith, LRQA , who gave a brief overview of Lloyds Register and an insight into the future of management system standards including Annex SL, PAS (integration of management system standards) and the likely changes to ISO 9001 in 2015.

Frank Cronin, of LR Scandpower, who has a quality management system background from early days at Heysham I and II and Amex-NNC spoke about learning from Deepwater Horizon, Fukushima and other disasters.

His presentation highlighted the importance of leadership engendering a sound safety culture and the importance of deriving effective learning from such events. Frank gave examples of events prior to Deepwater and Fukushima that were similar in nature and are hence examples of “Lessons **not** Learned” (including memorial stones in the Japanese village of Aneyoshi, 1.8 km inland, marking the extent of an historical tsunami which the recent tsunami fell short of by 100m). He discussed the barriers to learning lessons from events and ideas to overcome them including understanding that people have different learning styles and the importance of “making it personal”.



The Office for Nuclear Regulation (ONR) were represented by Geoff Grint, a probabilistic risk assessment expert, who was a key player in organising the UK’s response to the Fukushima event. Geoff gave details of the disaster as it unfolded. The initiating factor was the failure of the sea wall to deal with a wave of a size that could be predicted, i.e. the risk was known but Japanese regulatory and senior utility management did not put in place



corrective action.

The loss of external and emergency power supplies led to the loss of reactor cooling and the containment explosion. Frank described the subsequent “stress test” internationally and particularly in the UK to ensure lessons are learned. The UK’s final report issued in September 2011 included 38 recommendations (26 from the interim report and 12 further recommendations) and covered all UK Nuclear Facilities.

A significant difference between the UK experience and Japan is that for many years we have had a process known Periodic Safety Reviews or PSRs during which potential improvements to safety systems necessary due to aging plant or emergence of new technology etc are considered and if appropriate implemented. There is a 2014 ONR target for completion of the most significant work arising from the review.

Richard Hibbert, RSRL and member of the NucSIG Steering Group gave a presentation discussing the challenges of aligning risk assessments in a corporate management system, considering:

- the involvement of various organisational levels
- different disciplines (nuclear safety, conventional safety, security, financial etc)
- an audit finding expecting a “Golden Thread”.

Attendees split into three groups, gathered around a flip chart after Mike Underwood, NucSIG Chairman, prompted them to discuss two issues:

1. What could they take back or had learned about the Fukushima event?

As quality professionals the group concluded that we had a responsibility to:

- watch out for complacency in the workplace,
- always “Speak Up” when we are concerned even if this may be difficult and critical of top management
- Be the conscience of the organisation
- Prompt the use of organisational culture reviews such as those based on INSAG 15
- Ensure we have effective risk management processes which ensure closure of issues
- Ensure good oversight of the nuclear safety assessment process
- Have proven quality systems in place
- Support the importance of the Periodic Safety Review process.

And

2. What are the consequences of the expected change to ISO 9001 with respect to risk and opportunity management? The group concluded:

- For the nuclear industry, as we have had systems in place for risk assessment for many years this change will not require a fundamental change to our systems – however this may be more of a challenge in other sectors and to the nuclear supply chain



- Essentially we will need to simply highlight how we already manage risk
- We should try to integrate the ways in which we consider risk eg financial, nuclear safety, industrial safety etc.
- By better consideration of risk a management system can be expected to be more effective.
- There is a need to better understand what is meant by the expression “opportunity”, this is used in Annex SL alongside “Risk” but is a less familiar term.

### **Acknowledgements**

The NucSIG Steering Group thank LRQA for facilitating this event at an excellent venue and for brilliant organisation by LRQA’s Amanda Fletcher and many thanks to the presenters, Kevin, Frank, Geoff and Richard.

Mike Underwood.